

REMARKS

Applicants have the following response to the Examiner's communication of May 15, 2006.

Background

In response to the Office Action of November 17, 2005, Applicants filed Amendment D on February 17, 2006. In general, in Amendment D, Applicants amended Claims 41, 45, 48, 51, 54 and 67-71 to delete the feature that the gate insulating film comprises a hydrogenated silicon oxynitride film and amended Claims 41, 45 and 48 to recite that the base film comprises a hydrogenated silicon oxynitride film.¹ Applicants also explained how the claims have overcome the Examiner's rejections and are in an allowable condition.

Examiner's Communication

In response to Amendment D, the Examiner issued the Examiner's communication of May 15, 2006. In the Examiner's communication, the Examiner stated that Applicants' amendments of claims 41-71 (in Amendment D) are directed to an invention that is independent or distinct from the invention originally claimed. In particular, the Examiner stated that the claimed invention as defined by the original presentation comprised a limitation on a gate insulating film with claimed ranges of concentrations of nitrogen, oxygen and hydrogen therein, and in the amendment, applicant replaced said limitation with limitations on a base film or a second base film on the first base film, with said claimed ranges for concentration of nitrogen, oxygen and hydrogen. The Examiner then concluded that the amended claims are directed to a patentably distinct species from the original claims. As a

¹ Applicants made other amendments to the claims but the other amendments do not appear to be relevant to the Examiner's communication.

result, the Examiner stated that Claims 41-71 were withdrawn from consideration as being directed to a non-elected invention.

The Examiner, however, stated that the amendment appeared to be a bona fide attempt to reply and gave applicant a one month period (with extensions available) to supply the omission or correction.

Teleconference With Examiner

On June 14, 2006, the undersigned had a telephone conference with the Examiner, which Applicants and the undersigned appreciate, to discuss the Examiner's communication and a proposed amendment to the claims (to supply the omission from the claims). The Examiner stated that he could not offer an opinion on the proposed amendment over the phone. The Examiner, however, did state that Applicants were making a bona fide attempt to respond to the Examiner's communication. Accordingly, the Examiner stated that if the amendment did not overcome the Examiner's objections in the communication, the Examiner would call the undersigned and issue a new communication setting another month to reply.

Response to Examiner's Communication

In response to the Examiner's communication, Applicants are amending the claims to return the feature of said gate insulating film comprises hydrogenated silicon oxynitride to the claims. As a result, the claims are still directed to the originally presented invention.

Applicants are also maintaining the feature of said base film comprises hydrogenated silicon oxynitride in the claims. Hence, the claims have the original feature + a new feature.

Since the amended claims are based on and still include the original feature, the claims are still directed to the originally presented invention, with an additional feature. Therefore, it is respectfully submitted that the Examiner's objection in the Examiner's communication has been overcome, and it is requested that the objection be withdrawn, the amended claims entered, and examination continued on the amended claims.

Applicants will now address the Examiner's rejections in the order in which they appear in the Office Action.

Claim Rejections – 35 USC §112

Claims 41-71

In the Office Action, the Examiner continues to reject Claims 41-71 under 35 USC §112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed.

More specifically, the Examiner objects to the phrase in independent Claims 41, 45, 48 and 51 regarding the concentration of oxygen, nitrogen, and hydrogen “throughout the thickness of said hydrogenated silicon oxynitride film” in the claimed range, as not being found in the specification, text or drawings.

While Applicants traverse this rejection, in order to advance the prosecution of this application, Applicants amended independent Claims 41, 45, 48, 51 in Amendment D to delete the phrase “throughout the thickness.” Such phrase is still deleted in the present amendment. It is respectfully submitted that this prior amendment overcomes the Examiner's objection. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claims 51-56, 60-61, 65-66 and 68-71

In the Office Action, the Examiner also rejects Claims 51-56, 60-61, 65-66 and 68-71 under 35 USC §112, first paragraph, as failing to comply with the written description requirement. This rejection is also respectfully traversed.

More specifically, the Examiner objects to the phrase in Claims 51, 54, 68 and 69 that first and second base insulating films comprise a hydrogenated silicon oxynitride film, and including in particular hydrogen. The Examiner states that base insulation film 102 consists of first base insulation file 102a, which is a silicon oxynitride film and which has not been disclosed to include hydrogen, and a second base insulation film 102b which, being a hydrogenated silicon oxynitride film, does include hydrogen.

While Applicants traverse this rejection, in order to advance the prosecution of this application, Applicants amended in Amendment D Claims 51 and 54 to delete the phrase that the first base insulating film includes hydrogen and silicon and oxygen. Claims 68 and 69 also were amended so that they are not objectionable. These amendments have been maintained in this amendment.

Accordingly, it is respectfully submitted that these amendments overcome the Examiner's objections, and it is requested that this rejection be withdrawn.

Claims 41, 45, 48, 51, 54 and 67-71

As explained above, in order to clarify the claimed invention, Applicants have amended Claims 41, 45 and 48 to recite that the base film comprises a hydrogenated silicon oxynitride film. In addition, dependent Claims 67-71 were amended in Amendment D to recite an interlayer

insulating film over the first, second, (and third) gate electrodes, and that the interlayer insulating film comprises a hydrogenated silicon oxynitride film having an oxygen concentration from 55 to 70 atomic%, a nitrogen concentration from 0.1 to 6 atomic%, and a hydrogen concentration from 0.1 to 3 atomic%. These features are supported by, for example, page 3, ln. 26 - page 4, line 26 of the specification of the present application.

Accordingly, it is respectfully requested that these amendments be entered and allowed at this time.

Conclusion


It is respectfully submitted that the present application is in a condition for allowance and should be allowed.

Please charge our Deposit Account No. 50-1039 for any fee due for this amendment.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

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